

AIMS *as a*

High School
Graduation Requirement

Analysis of
Public Survey Data
and Recommendations

A Report for the
Arizona State Board of Education

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Prepared by WestEd

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For more information on this report, contact:

Paul Koehler
WestEd – Phoenix Office
2020 N. Central Avenue, Suite 660
Phoenix, AZ 85004-4507
1.602.322.7000

For more information about WestEd, visit our Web site: WestEd.org/; call 1.415.565.3000 or, toll-free, (1.877) 4-WestEd; or write:

WestEd
730 Harrison Street
San Francisco, CA 94107-1242

EXECUTIVE SUMMARY

This report describes the findings from WestEd’s independent analysis of public input from Arizona education stakeholders and citizens about the future direction for AIMS as a high school graduation requirement. As requested, it also includes WestEd’s recommendations for the State Board of Education about how AIMS implementation might proceed in the future.

Background. Following the November 2000 announcement from the State Board of Education and Superintendent Lisa Keegan that they would seek such input, the public was asked to complete a survey or attend a town hall meeting to express its opinions. The Department of Education asked WestEd to undertake an independent analysis of the survey data as well as conduct town hall meetings in Phoenix, Tucson, and Flagstaff. Participants were asked to respond to two specific questions: 1) On what date should AIMS count as a graduation requirement? 2) What steps would it take to implement AIMS by that date?

Findings. There was no consensus on the first question from either source. Participant answers ranged broadly, but the mean response on the survey—2007 for reading and writing and 2008 for mathematics—is consistent with the view of many town hall speakers. On the second question, more than half the survey respondents and a large number of town hall speakers said that before diplomas can be contingent upon AIMS, changes must be made in the system. Districts and schools need more time to implement standards-based curriculum and instruction and students need expanded opportunities to learn the content on which they are tested. Other themes expressed were also similar across the surveys and the town hall meetings.

Recommendations. Based on the survey analysis and town hall input, as well as on experience from our extensive work on accountability and assessment systems in other states, WestEd offers a number of recommendations. Key among them:

- *WestEd strongly recommends against implementing AIMS as scheduled.* Many schools across Arizona have yet to take all the necessary steps to prepare the 2002 and 2004 graduation classes for high-stakes consequences on AIMS. Implementing as scheduled raises the likelihood of a successful legal challenge. More important, it is unfair to hold students responsible for content they have not yet been taught.

The following other options are discussed, including WestEd’s recommendations on whether to implement them:

Option: Indefinitely delay the consequences of AIMS. WestEd recommends against indefinite delay. Although there was no clear public consensus on when AIMS should count for a diploma and there was consensus that steps need to be taken to ensure that all students are prepared to pass the test, experience in other states suggests a need for a firm implementation date. Without one, students and educators will not take the necessary steps to ensure readiness.

Option: Implement the reading and writing sections prior to the mathematics section. WestEd recommends against different schedules for different sections. Such an approach would create serious tracking and logistical

problems. Moreover, implementing AIMS piecemeal is inconsistent with the underlying philosophy of AIMS that success after high school (workplace and citizenship) is based on mastering content in all three areas.

Option: Further modify the content of AIMS. WestEd recommends against temporary modifications of AIMS content. Further review and modifications could be made based on the state of current curricular and instructional alignment with the standards and/or content appropriateness. But schools and students need a fixed target to aim for. The state might wish to commission one final review of AIMS content to ensure that the remaining standards are truly essential for workplace success and responsible citizenship.

Option: Delay the implementation of AIMS with a predetermined “live” date. WestEd recommends modifying the AIMS graduation implementation date based on a combination of 1) when schools could reasonably have been expected to prepare students on the standards used to develop AIMS; and 2) on the current state of readiness. Since preparation seems to be especially lagging for mathematics, focusing on mathematics readiness for this decision seems most fair and prudent. We recommend a phased-in modification of the mathematics requirement, beginning with a *moderate* performance level, which would be progressively increased as warranted by data. The reading and writing performance standards would stay as is.

- *Specifically, we recommend implementing AIMS with the graduation class of 2005 with a moderate mathematics passing standard (and current reading and writing standards) and then shifting with the class of 2007 to the current performance standards.* Prior to each of those implementations, an analysis of AIMS achievement data should be conducted to ensure that every student is being prepared.

We also recommend forming a technical advisory committee to monitor progress and review results.

Related policy considerations. As the State Board considers recommendations for using AIMS as a high school graduation requirement, a number of other policy issues arise related to making the accountability system successful. Chief among them is the need to build system capacity, especially in terms of addressing the professional learning gap—the need for new knowledge and skills that will enable teachers, administrators, and the district- and state-level professionals who support them to fully implement standards-based programs and practices. Success will depend on all key constituencies attending to this and other needed tasks.

TABLE OF CONTENTS

Executive Summary	3
Introduction	6
AIMS Survey Results	8
Summary: Town Hall Meetings	14
Graduation Requirements.....	17
Related Policy Considerations.....	20
Appendix A: Arizona Department of Education Survey.....	
Appendix B: WestEd Coding Scheme	

INTRODUCTION

The State Board of Education and Superintendent Lisa Keegan announced in November 2000 that they would seek input from educational stakeholders and all citizens about the future direction for AIMS as a high school graduation requirement. Specifically, local governing board members, district superintendents, charter holders, community organizations, parents and educational organizations were asked to complete a survey or attend a town hall meeting or a focus group to provide input about the AIMS program.

Approximately 4000 surveys with two open-ended questions (see Appendix A) were mailed by the Arizona Department of Education (ADE) to all members of these groups in early December 2000. The Department used available mailing lists for the survey, and no attempt was made to seek responses from a random group or from selected members of any group. All members were invited to respond. By March 1, 2001, the Department received about 433 surveys. Most surveys contained some information about the respondent such as name, position, organization and location. Some information was received by e-mail at the Department of Education, and it was included in the data gathered by the Department staff.

In early March 2001, WestEd, one of the nation's designated Regional Educational Laboratories serving Arizona, California, Nevada and Utah, was contacted by the Department to undertake an independent analysis of the information contained on the surveys. Performing such tasks is consistent with WestEd's mission to provide assistance to each of the states in areas such as accountability systems and related policy matters. WestEd is committed to bring impartiality and independence to the work it performs. In addition to analyzing the survey data, WestEd agreed to prepare recommendations for the Superintendent and State Board of Education about how the AIMS program might proceed in the future. WestEd staff have extensive experience working with more than a dozen states such as New Jersey, Kentucky, California, Oregon, and Nevada on their statewide accountability and assessment systems. WestEd proposed to bring some of the "lessons learned" from that work to the Arizona report.

The WestEd staff working on the report of the AIMS survey and the recommendations for future use were: Paul Koehler, Ph.D., Director of Policy; Stanley Rabinowitz, Ph.D., Director of Assessment and Standards Development Services; Jeanne Miyasaka, Ph.D., Assessment Specialist; other WestEd research staff assisted with the coding and analysis of the data.

As the data from the surveys were analyzed, several decisions were made by WestEd to organize the information. The decisions about data organization include the following:

- No representation of sample accuracy has been made in the report since the data returned on the surveys was not a random or scientific sample of the data available from the state. Given the relatively low return rate, no attributions of statistical significance are attached to findings.
- In several cases, one survey contained the names or signatures of two or more individuals. In order for WestEd staff to establish a "rule" for deciding if a returned survey like this should be counted as one or more than one survey, it was determined that one survey form would count as one data point

regardless of the number of names or signatures it contained. In other cases, surveys appeared to have been copied at a school site allowing several staff to submit surveys from that site. In this case, WestEd staff treated each submission as separate surveys. Again, each survey received counted as a separate survey.

- Although the returned surveys were grouped and initially coded by ADE staff, WestEd decided to develop and use its own coding system to develop the data sets for the report. This way, WestEd staff could discuss and agree on the way to code and classify all of the data. In addition to the WestEd staff coding all of the data from the surveys, the principal investigators also read each survey. (Note: ADE staff were cooperative and helpful in orienting WestEd staff to the survey methods and the data collected.)

The coding scheme developed by WestEd is presented in Appendix B. Sample surveys were selected to ensure that scheme was both efficient and robust. A second sample of surveys was used to qualify each of the researchers who participated in the coding.

- In addition to reporting survey results for all respondents, we determined that there would be value to further breaking down responses by subgroups. Three demographic indicators were used for further review: (1) school level (high school vs non-high school); (2) position of respondent (e.g., parent, teacher, principal); and (3) metropolitan vs. rural school or district.
- In addition to an analysis of the survey data, WestEd staff have summarized the proceedings of the three town hall meetings held across the state. These summaries are included in this report. ADE staff have transcribed all focus group discussions. Summaries of those meetings are available by contacting the Arizona Department of Education.

AIMS SURVEY RESULTS

AIMS Survey – Question 1A

The first question on the survey asked respondents to indicate their recommendations for what date AIMS should be used as a graduation requirement for high school students. Some respondents answered for the entire battery of subjects (reading, writing, and mathematics); others indicated separate dates for each content area.

The range of responses ran from 2001 all the way through 2016. (The full frequency distribution is presented in Appendix C.) No one implementation date received majority attention. Table 1 below indicates that the mean response for the reading and writing sections was 2007, with the mean response for mathematics at 2008. While the modal response for all sections was 2010, many other dates ranging from 2004 to 2012 received nearly as much support.

Table 1

Summary Statistics of Recommended AIMS Implementation Date

Summary Statistics	Reading Date	Writing Date	Mathematics Date	Total Battery Date
Mean	2007	2007	2008	2008
Median	2008	2008	2008	2009
Mode	2010	2010	2010	2010
Minimum	2001	2001	2001	2001
Maximum	2016	2016	2016	2016

Examination of the recommended implementation dates of different constituencies was consistent with the data reported above. Only minor differences were found across school level (high school vs non-high school), position of respondent, and metropolitan vs. rural.

AIMS Survey – Question 1B

In addition to proposing an AIMS graduation requirement date, survey respondents were asked to explain why they recommended that date. Based on the surveys returned, 364 respondents, approximately 84%, provided at least one explanation related to their recommended AIMS graduation requirement date. The number and percent of responses they provided for specific areas are presented in Table 2 below.

Table 2

Explanations of Graduation Requirement Date Recommendation

Explanations	Number ^a	Percent ^b
Allow More Time for Opportunity to Learn	223	51.5 %
Test Validity/Reliability Concerns	37	8.5 %
Continue As Is	28	6.5 %
Sole Determinant for Diploma	26	6.0 %
Start in Lower Grades – Accountability	23	5.3 %
Alternative Diplomas	15	3.5 %
Equity – Increased Dropout	11	2.5 %
Change in Performance Standards	7	1.6 %
Special Education	6	1.4 %
Use Other Standardized Tests	3	0.7 %
LEP	2	0.5 %
Other (Non-Graduation Comments)	17	3.9 %
No response	52	12.0 %

^a The total number of responses is greater than the number of survey respondents (364) because some may have made comments related to more than one of the categories above.

^b The percentage based on the number of responses divided by the number of surveys (433).

More time for systemic implementation and student opportunity to learn the standards. More than one-half (51.5%) of the respondents indicated that their recommended date was based on the need to provide more time and opportunity for students to learn the Arizona Content Standards assessed by the AIMS tests. In other words, the graduation requirement date should be operational when there has been sufficient time for the development and implementation of a number of systemic components. Examples of these include curriculum and instructional alignment to the state standards, teacher professional development related to understanding and teaching the standards, and monitoring and tracking instruction and student achievement through the grades. Many of these comments are also described in the results for Question 2.

Several other important explanations and concerns were expressed by fewer respondents as rationales for their recommended graduation requirement date. The category of comments, the percent of responses, and a description of the comments are presented below.

- Test validity and reliability concerns (8.5%). Several respondents were conditional about their recommended date by stating that graduation requirement should not apply until there is evidence that the tests are valid and reliable. Most of the concerns centered on the mathematics tests and the need to focus on its purpose—a graduation test that reflects standards that all students can be expected to achieve. Some respondents feel that the current tests reflect achievement expectations of

college-bound students and that achievement expectations are too high for graduation purpose of the test.

- Leave the graduation requirement dates as is (6.5%). Several respondents said that the current schedule is appropriate. These respondents commented that moving the date forward sends mixed messages to teachers and students and that students may not be motivated to learn if the date were changed.
- The test as the sole determinant for a diploma (6.0%). These respondents expressed the view that no single test can measure the broad and comprehensive capabilities of students and that a high school diploma should not be denied students on the basis of the AIMS tests if students meet other requirements.
- Instruction and accountability should start in the lower grades (5.3%). Several respondents explained that the AIMS program should start from the “bottom up” rather than the “top down.” They felt that meeting the AIMS standards should be required at lower grades, particularly at the 8th grade. High school administrators and teachers were concerned about being held accountable for ensuring that students meet the graduation requirement when many of the students have not yet met the 8th grade performance standard.
- Alternative diplomas (3.5%). Several respondents proposed awarding students with differentiated diplomas, i.e., course credits met – course credits + AIMS requirement met. Others suggested a tiered diploma that indicates the AIMS performance level achieved by the student.
- Equity for minority students and increased dropout (2.5%). A number of respondents indicated there should not be an AIMS graduation requirement because of the lack of equity between the students’ opportunities to learn the standards in schools of lower and higher socioeconomic demographics. These respondents were also concerned about the likelihood of increased numbers of lower socioeconomic students getting discouraged and dropping out of school.
- Change in the performance standards (1.6%). Some respondents suggested that the graduation requirement be initially reduced and then increased as the impact of the requirement is monitored. Others suggested that graduation requirements be changed from passing each and all of the tests separately to passing the tests based on a combined score of the tests.
- Special education (1.4%). These comments were about unrealistic standards, demands, expectations, and accommodations for special needs students.
- Use other standardized tests (0.7%). These respondents questioned the need for the AIMS graduation test since they believe that the results are not really used by higher education institutions or employers. The General Equivalency Diploma (GED) test or the Scholastic Assessment Test (SAT) was suggested for use in place of the AIMS tests.
- Limited English Proficiency concerns (0.5%). Comments about LEP students include addressing the instructional needs for helping students succeed and considering a passing score that is lowered initially then raised yearly for LEP students.

AIMS Survey – Question 2A and 2B

In survey Question 2, respondents were asked: “In your opinion, what steps are necessary in your district/school to implement AIMS as a high school graduation requirement by the date recommended in Question 1?”

The results for this question will be presented in two parts. First, the responses that directly address the “necessary steps” focus of the survey question will be presented in Table 3. Then, other comments related to the use of the AIMS test results will be provided.

Table 3
Question 2
Necessary Steps for District/School Implementation of AIMS

Necessary Steps Related To:	Number ^a	Percent ^b
Standards and Curriculum	171	39.5 %
Students	125	28.9 %
Teachers	119	27.5 %
Test	113	26.1 %
Communication	55	12.7 %
Funding	32	7.4 %

^a The total number of responses is greater than the number of survey respondents (346) because some may have made comments about more than one category above.

^b The percentage based on the number of responses divided by the number of surveys (433).

Of the 433 surveys returned, 346 of the surveys, approximately 80%, included one or more responses about the necessary steps for implementing AIMS as a high school graduation requirement.

- Standards and Curriculum (39.5%). Approximately 40% of the respondents indicated that more time to align the curriculum, instruction, and instructional resources to the standards is a primary necessary step for implementing the AIMS requirement.
- Students (28.9%). These necessary steps include developing and implementing plans for student remediation, preparing students for the test by addressing test anxiety and test-taking strategies, and obtaining and using practice tests to help students prepare for the AIMS. Many of the respondents would like the Arizona Department of Education to provide more sample tests so teachers and students have more information about how the standards are tested.
- Teachers (27.5%). Teacher-related responses include pre-service and in-service training for teachers in understanding the content embodied in the standards and being able to effectively teach the standards.
- Test (26.1%). Test-related responses include concerns about the validity and reliability of the math tests; restructuring math tests to increase passing scores; receiving the test reports in a timely manner so that they can be used to plan student remediation and instruction; releasing AIMS tests that have been used; making changes in the test for special education and Limited-English Proficiency (LEP) students; using performance assessments to more comprehensively assess student learning.

- Communication (12.7%). These needs include better communication between the state ADE and the districts and schools with parents and the community as well as more involvement of parents and the community in the AIMS development process.
- Funding (7.4%). These responses include the need for more funding for teacher training and for remediation program development and implementation. A few respondents indicated that monies from Proposition 301 would be helpful for supporting implementation efforts and activities.

In addition to these overall frequencies of responses, we also examined responses broken down by each of the demographic groups examined—school level (high school vs. non-high school), position of respondent, and metropolitan vs. rural. Because of the low survey return rate, differences among groups are difficult to interpret. Below is a summary of the largest differences within each demographic category.

School level. Non-educators were less likely to indicate a specific reason to delay AIMS implementation than those working in schools. District-level staff were more than twice as likely to recommend changes to the test than any other subgroup.

Position. On many indicators parents differed in their recommended strategies than educators. In some cases, the educational organizations differed from their specific members. Specifically, parents were less likely to recommend a specific course of action than any other group. Educators were about twice as likely to cite student concerns than either parents or board members. Parents were more likely to recommend actions concerning teachers than any other subgroup. Board members, superintendents, and educational organizations were far more likely to cite problems with the test than any other subgroup. Parents were least likely to indicate concerns with standards and curriculum; board members were the most vocal in calling for better communication strategies.

Metropolitan vs rural. Given our experience with these types of surveys, we would have anticipated to find greater differences between these two groups. However, the only major difference was that rural districts were somewhat less likely to cite concerns with the test.

In addition to comments directly addressing the necessary steps for implementation, respondents provided other AIMS-related feedback. The number and percent of these responses are presented in the table below.

Table 4
Survey Question 2
Other AIMS-Related Comments

Other AIMS-Related Comments	Number	Percent ^a
Award different types of diplomas	46	10.6 %
Change the graduation requirement	20	4.6 %
Require students to meet AIMS standards for grades 3, 5, and 8	26	6.0 %
Use AIMS for other purposes than graduation	22	5.1 %
Other	43	9.9 %

^a The total number of responses is greater than the 135 survey respondents because some respondents commented about more than one of the categories above.

^b The percentage based on the number of responses divided by the number of surveys (433).

Of the surveys returned, 135 of them (31.2%) included comments and suggestions about the graduation requirement or uses of the AIMS test results.

- Different types of diplomas (10.6%). Many of these responses included suggestions similar to those made in Question 1, e.g., tiered diplomas or transcripts which indicate several AIMS performance levels; or, differentiated diplomas for students in different types of programs.
- Graduation requirements (4.6%). Comments related to the graduation requirements include the following: keep the requirements as is; have different graduation requirements for differentiated diplomas; lower the performance standard initially then gradually increase the standards as the pass rate progresses; tie graduation requirement to SAT or GED; allow other criteria in place of AIMS for graduation such as SAT, ACT, ASSET; and allow other criteria in addition to AIMS, e.g., GPA, class rank, attendance.
- AIMS standards for grades 3, 5, and 8 (6.0%). Several comments were related to implementation and accountability in grade levels below high school: having benchmarks for 3rd, 5th, and 8th grade would help remediation planning; accountability guidelines are needed for the lower AIMS grades; requiring students in grades 3, 5, and 8 to meet the state standards for promotion.
- Use of AIMS for other purposes than graduation (5.1%). These comments include: establish incentives for students who do well on AIMS such as scholarships or honors diplomas; giving districts, schools, and teachers incentives for sharing knowledge, expertise, and strategies with others in the state; change pre-service teacher education programs to include more academic courses in mathematics and science especially for elementary teachers; have Arizona teachers score the writing test as a worthwhile professional development experience; promote ongoing articulation between feeder schools and high schools.
- Other (9.9%). Comments not directly related to Question 2 such as personal education experiences and other education or non-education issues.

SUMMARY: TOWN HALL MEETINGS

March 13, 2001 – Phoenix

March 14, 2001 – Tucson

March 15, 2001 – Flagstaff

Attendees. Some 200 people—approximately 100 in Phoenix and 50 each in Tucson and Flagstaff—attended. Ninety-seven, or nearly half the attendees, spoke. Parents and teachers predominated, but the groups also included superintendents, principals, school board members, students, school psychologists, counselors, curriculum writers, testing coordinators, teacher educators, business persons, and concerned citizens.

Opinion summary. In response to the two questions, most speakers voiced support for standards and accountability. However, about a third said passing AIMS should “never” be required for graduation. The weight of opinion appeared to be that if AIMS were to be a diploma requirement, that should only occur after first “fixing the system” by implementing standards-based curriculum and instruction “from the ground up,” i.e., beginning in the primary grades. The earliest implementation, therefore, would be no sooner than 2007-2010—with the strong caveat that the state should use multiple measures for a decision that so profoundly affects individual students’ lives.

Themes

The problem is the system, not the kids. Many said that it is unfair to deny students diplomas for failing on material they had not yet been taught. Speakers noted that if most students can’t pass AIMS after completing required courses, either AIMS is unfair or schools are shortchanging students, yet only students are being penalized. On the positive side, speakers said that AIMS is drawing attention to system problems and raising urgency to fix them. As an example, a teacher union representative said that some 40% of Arizona’s teachers have never seen a comprehensive set of the standards and, thus, are clearly not guided by them. A superintendent urged administering AIMS without penalty until analyses of results show that the standards have been incorporated and students are able to succeed. Others urged attaching “consequences” to 3rd, 5th, and 8th grade testing, meaning that schools should be using results to identify struggling students early, while there is still time to intervene and help them catch up. Still others suggested offering two kinds of diplomas—standard and plus-AIMS. Incentives to do well on AIMS, they said, might include automatic admission to state universities and/or scholarships for those who pass.

AIMS validity, reliability questionable. Several speakers noted that measurement experts do not support high-stakes use of a single measure for all groups. One noted that all tests are imprecise, as is scoring. Another said some questions are invalid, trivial, or non-essential. Others said no test can predict a student’s future success. One questioned the integrity of the test developer. Another made comparisons to the University of California’s questioning of the reliability of the SAT. Some appeared to lack clarity about terms such as norm- and criterion-referenced tests.

A single, high-stakes test is the wrong approach. Reasons cited included:

- *It's unfair.* “Because no test is without fault, it’s immoral.” “One size does not fit all.” “Some students don’t test well.” A number of speakers voiced concern about treating children like widgets. Some cited particular problems of fairness to special populations such as special education students, learning disabled students who don’t qualify for special education, and English learners.
- *It encourages teaching to the test and narrows the curriculum.* Many voiced concern that teachers will abandon practices that stimulate in-depth learning, critical thinking, and creativity. A teacher said her focus now on coverage no longer allows time for discussion and projects. Others worried that emphasis on AIMS-tested subjects will marginalize history, science, social studies, life skills, and the arts. Still others said AIMS pushes toward a “lockstep” system that serves only the needs of some and “kills the dreams” of others. Students may lose motivation or become bored, angry, depressed, or hopeless if school has no practical relevance to their lives, talents, or interests, said speakers.
- *It sends the wrong message.* Many said that the message to students is that the things AIMS does not measure—e.g., creativity, decision-making ability, critical thinking, citizenship, responsibility—are not valued. Speakers expressed concern about focusing only on “academically oriented, paper-and-pencil learners” and failing those who don’t fit that mold. Said a former teacher, “It takes some humanness out of the process of education, which is primarily a human endeavor.”

Use multiple measures. Speakers suggested “re-evaluating what we really want from kids” and using grades, portfolios, teacher evaluations, senior projects, community service, and/or attendance, along with tests, to measure performance.

Opportunities to learn are unequal, uneven, and insufficient. One speaker called AIMS an “opportunity to fail.” Some noted mismatches between the curriculum and the standards, e.g., the requirement of two years of high school math does not specify standards-based content. Others said schools have begun requiring students who fail algebra 1 to move on nonetheless to geometry and algebra 2, with no opportunity to re-take algebra 1. Several said some high school teachers don’t know enough math to teach it well, and that many teachers are not certified in the subjects they teach. For these reasons, speakers said, students don’t have the chance to learn the material. Then, when they fail AIMS, they get no tutoring before taking it again. Speakers noted broad disparities from district to district, school to school in terms of what gets taught and quality of teaching. One called it “elitist” to withhold diplomas based on AIMS, when students in poorer areas have fewer opportunities to learn.

Standards and testing can help ensure equity. Several speakers said standards and accountability are especially necessary to address inequities and ensure equality of opportunity. “All kids should be taught the same,” said one teacher who expressed outrage at the deficits she saw when she switched to teaching in a higher-poverty part of town. One advocate for accountability said his high school gave him a diploma though he was illiterate; he later taught himself to read. An elementary principal said standards and an assessment will benefit entire communities. He spoke of students living in poverty because their parents, though high school graduates, read at the 3rd grade level and have trouble supporting their families.

Unintended consequences. A high school counselor noted that students can go to colleges or universities without a high school diploma but cannot get financial aid, e.g., Pell grants, without a diploma or GED. So mandating AIMS for diplomas, he said, may motivate students to take the GED instead. Many may drop out. (One speaker, a college

student, broke down in tears as she reported that her brother had just dropped out of high school because he was sure he couldn't pass AIMS.) Moreover, high school teachers nearing retirement age may leave rather than take the blame for large numbers of students denied diplomas due to AIMS, thus exacerbating the teacher shortage.

AIMS implementation flawed; environment of over-testing. Speakers voiced a number of complaints: It takes too long to get AIMS scores, leaving no time for remediation before the next administration of the test; schools and students need sample tests and study guides (as is done with New York state Regents Exams, several said) so they know what is covered and can practice with the format; AIMS test dates are not announced early enough to be integrated readily with other school activities; AIMS is superimposed on too many other high school tests—SAT9, PSATs, SATs, AP exams; the logistics of administering AIMS to all sophomores as well as re-testing many juniors and seniors overwhelms teaching staffs with proctoring demands; the state should choose AIMS *or* the SAT9, not have both.

Broaden accountability. Speakers said that students cannot be the only ones held accountable. Teachers and principals should be able to pass the test, said a student. Teachers, principals, school board members, and parents, as well as “the state”—ADE, the state board, the legislature—must ensure that schools serve students well. One teacher cited “a terrible double standard” in the state’s holding students accountable for meeting standards when the state, she said, is not held to standards. She quoted *Education Week*’s state-by-state report card, “Quality Counts 2001,” that gave Arizona C+ in standards and accountability, but D in improving teacher quality, D- in school climate, F in adequacy of resources, and D+ in resource equity.

To be accountable, schools need resources and support. Rather than controlling or micromanaging, speakers said, the state should provide schools with what it takes to raise all students to the standards. Needs cited include: teacher development, especially resources that will make possible more time for teachers to work together to understand the standards and develop standards-based curriculum and instruction as well as strategies for diversity; better teacher pay (one speaker was a teacher and mother of two, living below the poverty level); more substitute teachers; smaller class sizes; a longer school year (for more student learning time, more professional development time); professional development for principals; textbooks; facilities; all-day kindergarten; and community-based funding for student health and welfare so that school funds can be reallocated to support instruction. (An assistant superintendent noted that schools pay the salaries of nurses who function as the sole health provider for many uninsured families.)

GRADUATION REQUIREMENT RECOMMENDATIONS

Based on the results of the survey and lessons learned from states across the nation attempting to develop and implement high school graduation examinations, it is evident that many schools across Arizona have yet to take all necessary steps to prepare the 2002 and 2004 graduation classes for high-stakes consequences of AIMS. States in such circumstances have several options available to them. Some have chosen to implement the requirement as scheduled. WestEd strongly recommends against this approach, in part because of the likelihood a lawsuit citing opportunity to learn concerns will be successful. More important, it is unfair to hold students responsible before they have been fully instructed on the standards on which AIMS is based.

Below we describe several more defensible options and include a recommendation on whether ADE and the State Board of Education should consider each as they review current AIMS policies.

- *Delay the consequences of AIMS indefinitely.* Analysis of the survey indicated no consensus on when educators and the public believed AIMS should count as a high school graduation requirement. The responses to Question 2 suggested that several steps are still necessary until all schools are ready to prepare all students to pass the test. This suggests considering an indefinite delay until a consensus can be reached on when all students are fully and properly prepared. WestEd recommends against this option. It is our experience that unless a firm implementation date is set, students and educators will not take all necessary steps to ensure readiness.
- *Implement the reading and writing sections prior to the mathematics section.* As Table 5 indicates, students appear much better prepared for the reading and writing sections than they do for mathematics. This suggests examining the implementation of each section separately. WestEd recommends against this option for several reasons. First, different implementation schedules for different graduation classes create serious tracking and logistical problems for ADE, test contractors, and local districts, particularly those with high mobility rates. In addition, the model on which AIMS is based presumes that success after high school (workplace and citizenship) is based on mastering content in all three areas. Implementing AIMS piecemeal is inconsistent with that philosophy.
- *Further modify the content of AIMS.* To date, AIMS content has been reviewed for appropriateness and readiness. The current examinations, particularly in mathematics, are more closely aligned with reasonable content for a high school exit examination than previous versions. Further review and modifications could be made based on the state of current curriculum alignment practice, teacher readiness to instruct students on AIMS standards, and/or further review of content appropriateness. Such modifications could be permanent or temporary, based on when readiness activities are complete. WestEd recommends against a temporary modification of AIMS content—schools and students need a fixed target to aim for. ADE and the State Board of Education might wish to commission one final review of AIMS content to ensure that the remaining standards are truly essential for workplace success and responsible citizenship.
- *Delay the implementation of AIMS with a predetermined “live” date.* WestEd recommends that the AIMS graduation implementation date be modified based on a combination of (a) when schools could reasonably have been expected to prepare students on the standards used to develop AIMS and (b) on the current state of readiness. As Table 5 indicates, preparation seems to be lagging,

especially for the mathematics section; thus, focusing on mathematics readiness in setting the recommended implementation date seems most fair and prudent.

Table 5
Spring 2000 AIMS Test Results

Subject	Grade	Performance Levels				
		Far Below (%)	Approaches (%)	Meets (%)	Exceeds (%)	Meets + (%)
Reading	3	12	18	45	25	70
	5	16	20	46	19	65
	8	30	18	38	43	81
	10	12	20	47	21	68
Writing	3	14	19	59	8	67
	5	21	33	45	1	46
	8	14	38	43	5	48
	10	18	49	33	1	34
Mathematics	3	17	35	33	15	48
	5	24	38	23	16	39
	8	50	34	11	5	16
	10	72	11	16	1	17

Specifically, we recommend a temporary modification of the mathematics graduation requirement to a *moderate* performance level; this would allow the momentum of current preparation activities to continue without prematurely penalizing students. This moderate level would be progressively increased as data on the implementation and impact of the performance standard are examined. (The reading and writing requirement would remain at the current performance level.) Several states have been successfully implementing this moderate standard approach. Most recently, Nevada used this strategy to implement its High School Proficiency Examination.

This process would take place in two phases.

- In the first phase, students in the Class of 2005 would be required to pass the AIMS reading and writing tests at the current performance level and the mathematics test at the moderate level. These students would take the AIMS graduation examination for the first time as tenth graders in 2003. Data from the 2001 and 2002 AIMS administrations would be used to determine the moderate mathematics performance level.
- In the second phase, students in the Class of 2007 or beyond would be required to pass the AIMS at a higher level based on data regarding the implementation and impact of the graduation requirement. Data from the 2003 – 2006 AIMS administrations would be used to monitor the progress of the graduation rate requirement and determine what the subsequent higher performance levels should be.

While we have based this recommendation on our experience working with more than a dozen states implementing high-stakes accountability examinations, we understand that ongoing monitoring is required to ensure that students are not penalized because of the actions (and inactions) of adults. We recommend that a technical advisory committee that includes national measurement specialists with high-stakes testing expertise and experience in various states be established to advise the Department on the effectiveness of ongoing AIMS preparation activities and progress in student performance in the interim years. This group would also work with ADE, the State Board of Education, and the AIMS contractors to determine the level and schedule of the moderate and final performance standards.

RELATED POLICY CONSIDERATIONS

As the State Board of Education considers the recommendations for using AIMS as a high school graduation requirement in the years ahead, there are a number of related policy issues to consider to make the accountability system successful. All of these issues, are based on comments on the surveys and town meetings, as well as WestEd's experience working both on state and local accountability systems throughout the nation.

Arizona Department of Education

- Continue to develop and publish validity and reliability information for each test to demonstrate the test's worthiness as a graduation instrument. Review the content and performance standards of the mathematics test to ensure its appropriateness as a graduation requirement for all students.
- Maintain consistency with the test forms to eliminate the concern that the "test keeps changing."
- Commission a study to determine the correlation of the AIMS tests with the Stanford 9 test used in Arizona.
- Commission a study to determine the type of content typically learned by Arizona high school students who have earned credits required by the State Board of Education for graduation from high school. This content coverage should be correlated to what is expected from the Academic Standards and tested on AIMS.
- Work with the legislature to provide assistance for districts that are involved with the alignment of standards and curriculum. The assistance most requested is time and sample test items.
- Work with test contractors to achieve the fastest possible turn around of test results to schools allowing students who need remediation to obtain that help.
- Communicate with and involve parents and community members as the AIMS test continues to be used and implemented as a graduation requirement in the Arizona schools.

Districts

- Get on with the task of curriculum alignment with the Academic Standards first approved by the State Board of Education in July 1996. Students have no chance of passing AIMS as a graduation requirement if the skills to be tested are not included in the "taught curriculum."
- Provide opportunities for training of principals and teachers on the use of standards and assessments in the classroom.
- Find and use data-use tools at the school and district level to assist principals and teachers with the understanding of data-driven decision making as a way to improve student and school performance on AIMS.
- Continue to monitor and track standards-based student achievement to ensure that students are having sufficient opportunities to learn the standards.

Principals

- Be willing to provide the leadership to move teachers and students into a standards-based system with publicly reported test results used to judge the quality of the educational experience at the school.

Teachers

- Participate in professional development opportunities to learn how to incorporate the Arizona Academic Standards into the “taught curriculum” and the use and analysis of AIMS test results.

Schools of Higher Education

- Incorporate training for all preservice and inservice teacher candidates on the Arizona Academic Standards and use of the AIMS testing as part of required undergraduate programs.
- Offer assistance on aligning Academic Standards, AIMS testing, and data use to all districts in their region, particularly the smaller and rural districts.

Professional Associations

- Adopt resolutions supporting the work of building a successful statewide accountability system and provide training and support to members through conferences and other professional development activities.

Students

- Understand that in the near future graduation from an Arizona high school means passing classes, earning required credits, and passing each section of the AIMS test.

Parents and Community Members

- Support the schools’ and districts’ efforts to align their curriculum with high academic standards and the difficult work of holding students accountable for the results.

The next five years of standards-based accountability work in Arizona must be characterized by the following conditions, as it has been in other states which have moved ahead and been successful in improving student achievement:

- A consensus by all who are responsible for education in Arizona that expecting all students to be taught and achieve high standards with publicly reported results will ultimately improve student achievement in Arizona.
- A commitment to open communications between policymakers at the state level and those responsible for “doing the hard work” at the district and school level.

Appendix A

Arizona Department of Education Survey

State of Arizona
Department of Education

Lisa Graham Keegan
Superintendent of
Public Instruction

TO: District Superintendents, Charter Holders, Principals, Charter School Directors, Education Organizations and Community Members

FROM: Lisa Graham Keegan, Superintendent of Public Instruction
Janet Martin, President, State Board of Education
Members of the State Board of Education

SUBJECT: Suggestions to the Board for Gathering Input on Effective Date for AIMS as a High School Graduation Requirement

DATE: December 5, 2000

On November 21, 2000, Superintendent Keegan held a press conference to present her recommendations for the continuing improvement of the state's assessment program. Two administrations of AIMS to high school students and one administration of AIMS to students in grades 3, 5 and 8, as well as our annual administration of the Stanford 9, have provided a wealth of information upon which to base recommendations for improvement. Results from the administrations of AIMS have given all of us information about how our students are performing on the state standards - information we did not have prior to its implementation. Among Superintendent Keegan's recommendations is to gather input from school districts, schools, educational organizations and community members to determine the most appropriate timeline for AIMS to become a graduation requirement for high school students. Current requirements state that the cohorts/classes of 2002 and 2003 must pass reading and writing and the cohort/class of 2004, and all cohorts/classes thereafter, must pass the mathematics portion of AIMS, in addition to reading and writing, to be eligible to earn an Arizona high school diploma.

ARS § 15-70 1.01 (A)(3) delegates the responsibility to the state Board of Education to "develop and adopt competency tests for the graduation of pupils from high school in at least the areas of reading, writing and mathematics." Five years ago, the Board accepted the challenge of raising the level of academic expectations for all students in the state's educational system. Concise, rigorous, understandable and measurable academic standards were approved in 1996 and a test to measure what students know and are able to do within the mathematics, reading and writing standards began in 1997. It is through the implementation of the Arizona Academic Standards and AIMS that we will improve the achievement of all students so they have as many choices in adult life as possible.

The state Board believes there is strong commitment from teachers, education leaders and parents to the Arizona Academic Standards. The integration of those standards into the local curriculum has presented a struggle for some schools and districts while others have committed much time and effort to alignment and integration of curriculum and intervention strategies as data became available. We are requesting information from you about how we should move forward with AIMS. Make no mistake about it; we are moving forward. The Board has no intention to stand still or to regress in our efforts to provide all students with the opportunity to learn the state standards and to be assessed on those standards continuously while enrolled in an Arizona public school. However, we do understand there is concern about the timeline and we want your input.

Education is a shared responsibility. Everyone must be involved in accountability and be willing to assume ownership of our collective responsibility to raise expectations and to increase achievement for all students. To date, that responsibility has rested almost entirely on the shoulders of the students. Successful schools are schools that move all students forward and do not hide behind averages. It is essential that schools note increased student achievement and gains for each and every student on the academic standards.

Based on the performance of students on AIMS and concerns expressed by schools and communities, the Board feels that it is prudent to reconsider the dates when AIMS becomes a graduation requirement for high school students.

The state Board of Education will seek input from local governing board members, district superintendents, charter holders, principals, charter school directors, community organizations, parents and state educational organizations in several ways. Interested parties, schools and districts are invited to respond using the enclosed questionnaire. Focus groups and town hall meetings will be scheduled in the near future.

If you would like to provide written input to the state Board, please complete the enclosed questionnaire and return it to Paul S. Young, Ed.D., Arizona Department of Education, 1535 W. Jefferson Street, Bin 6, Phoenix, AZ 85007 or send it by fax to 602-542-5467.

Enclosure: 1

Suggestions to the State Board of Education for Gathering Input on Effective Date for AIMS as a High School Graduation Requirement

Complete the following questionnaire to provide your input to the state Board of Education. The Department of Education and the state Board of Education value your opinion and thank you for the time spent responding to the questionnaire. Please respond to each question. Responses must be submitted to the Department of Education at the address below by February 1, 2001. Please include the following information. You may use additional paper as needed.

Contact Person: _____ Position: _____

Name of Organization: Address:

Telephone: e-mail:

1. What date would you recommend as the effective date for AIN4S to be a graduation requirement for high school students? You may recommend different dates for the three subtests (mathematics, reading and writing). Please explain why.
2. In your opinion, what steps are necessary in your district/school to implement AIMS as a high school graduation requirement by the date recommended in question 1?

Return to: Paul S. Young, Ed.D., Arizona Department of Education, 1535 W. Jefferson St., Bin 6, Phoenix, AZ 85007.

Fax: 602-542-5467 All responses will be confidential. Clarifying questions may be addressed to Paul S. Young, Ed.D. at young@ade.az.gov or by calling 602-542-5031, Dr. Billie Orr at borr@ade.az.gov.

Appendix B

WestEd Coding Scheme

Code	Category
1	Question 1
1A	Date
1A1 (Date)	Specific date Reading
1A2 (Date)	Specific date Writing
1A3 (Date)	Specific date Math
1A4 (Date)	Specific date Battery (whole test, specific subject areas not mentioned)
1A5	Never
1A6	Conditional
1A7	No date given
1B	WHY?
1B1	Status Quo
	<ul style="list-style-type: none"> Current schedule is appropriate Don't send mixed messages
1B2	Allow more time
1B3	LEP
1B4	Special Education
1B5	Other
1B6	No answer given

* Bulleted information defines subcategory

Code	Category
2	Question 2
2A	Within current constructs of AIMS assessment (must pass test to graduate)
2A1	<i>Student Related</i>
	<ul style="list-style-type: none"> • Student preparation (test anxiety, stress, social promotion) • Practice tests • Student remediation
2A2	<i>Teacher Related</i>
	<ul style="list-style-type: none"> • Standards training • Test preparation training
2A3	<i>Test Related</i>
	<ul style="list-style-type: none"> • Authentic assessment, performance tasks • Restructure to raise passing rates • Changes for LEP • Changes for Special Education • Must be valid, reliable, tested • Non-biased • Timely results from the state
2A4	<i>Standards and Curriculum</i>
	<ul style="list-style-type: none"> • Change standards (alter content or expectations) • More time to implement standards • Align curriculum to standards • Change (improve or alter content) curriculum • Teach to the standards • Align textbooks to the standards/curriculum
2A5	<i>Communication</i>
	<ul style="list-style-type: none"> • any mention of needing better communication (between state department and teachers, parents, business leaders, etc.) to implement test.
2A6	<i>Funding</i>
	<ul style="list-style-type: none"> • any mention of needing more money to implement test.
2A7	<i>Other</i>
2B	Outside current constructs of AIMS assessment
2B1	Change graduation requirements
2B2	Give different types of diplomas
2B3	Require passing AIMS for 3/5/8 promotion
2B4	Use AIMS for other purposes other than graduation
2B5	Other
2C	No answer given

* Bulleted information defines subcategory

